



Public Financial Management and Economic Development in Nigeria

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Abstract: This study examined Public Financial Management (PFM) and Economic Development in Nigeria. The study specifically examined the relationship between total government revenue and economic development in Nigeria, assessed the nexus between total government expenditure and economic development in Nigeria and evaluate the association between total public debt and economic development in Nigeria. Ex-post facto research design was adopted for this study and data used for the analysis were generated from the Central Bank of Nigeria Statistical Bulletin (CBN, 2020) for 20 years, spanning 2001 to 2020. This study made use of descriptive statistics to show the mean, standard deviation, minimum and maximum values of the variables used in the study. This was followed by correlation analysis, unit root analysis, co-integration analysis and long-run and short-run estimation results. Post-estimation tests included (serial correlation LM test, heteroskedasticity and normality test).

Findings from the study revealed that; total government revenue has a positive and insignificant effect on economic development in Nigeria to the tune of $0.0099(p=0.1161>0.05)$; total government expenditure has a negative and significant effect on economic development in Nigeria to the tune of $-0.0348(p=0.0334<0.05)$; there is a positive and insignificant effect of total public debt on economic development in Nigeria in terms of Human Development Index (HDI) to the tune of $0.0036(p=0.2331>0.05)$. The study concluded that Public Financial Management has insignificant positive relationship on Economic Development in Nigeria. It is recommended that Borrowed funds should be utilized to help the nation build her infrastructure.

Keyword: *Public Financial Management (PFM), Total Government Revenue, Total Government Expenditure, Total Public Debt, Economic Development, Human Development Index*

1.1 Introduction

The intermittent change of the political and economic climate of countries put pressure on governments to improve the policies regulating their public sectors. A competent public sector is assumed to be the determinant of economic progress. This is relatively noticeable in developing countries where governments are held accountable based on the efficiency of their policies and programme (Stanley, 2017). Besides, declaration of visible and realistic government activities in meeting the needs of the populace can be an efficient tool for the management

of public sector entities through the monitoring of public enterprise in producing expected impacts and outcomes. It is believed that this will easily create a good business environment that promotes economic activities, attracts investors, and stimulates economic development. The actualization of government policies and programs through which the development of the overall economic condition is achieved is heavily dependent on Public Financial Management (PFM).

According to Adesola and Kehinde (2020), public financial management includes the control of public

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revenue, expenditure, debt, foreign exchange reserves, foreign exchange system, economic liquidity level and public financial auditing. This underscores that public financial management is an activity chain that revolves around the effective mobilization of public funds and disbursement to advance economic development. In Nigeria, the last two decades have witnessed the implementation of several economic programs and policies to help the management of the economy and stimulate economic development. Interestingly, parts of these initiatives are to improve the quality of the country's PFM systems. PFM is seen as a critical tool to implement economic programs, and it is evidenced in the prudent disbursement and utilization of public resources through the monetary and fiscal policy (Olaoye&Olaniyan, 2020). A competent PFM system would ensure that funds utilized through internal revenue generation and appropriation techniques as well as from debt sources would be productively used transparently and effectively. A competent PFM system is also expected to ultimately contribute to economic development.

Indications from the literature shows that the connection between PFM and economic development of nations derives fundamentally from institutional factors like the IMF Policy Support Instrument (PSI), World Bank Structural Adjustment Programme (SAP) and the Enhanced Structural Adjustment Facility (ESAF) (Abdulkadir&Olashinde, 2020; Ajayi&Edewusi, 2020; Olaoye&Olaniyan, 2020). Though, most developing countries like Nigeria adopted and executed these programs, the effect of these initiatives on the public financial management in relation to economic development is not uniform. The efficiency of these initiatives could be majorly based on the need, result and ability to maintain these initiatives. Based on these

backdrops, the study examined Public Financial Management (PFM) and economic development in Nigeria.

1.2 Statement of the Problem

An overview of the economic profile of Nigeria clearly shows the blessedness of the nation in terms of the endowment of natural resources needed to generate adequate revenue and finance government programs. However, Chukwu and Udochukwu (2019) noted that despite the huge revenue from crude oil export, taxes and high public expenditure, Nigeria as a nation is not well-positioned in terms of human development due to poor access to basic social infrastructure, portable water, electricity, health, education, high level of unemployment, high level of insecurity among others. Governments at all levels allocate massive funds to various capital projects such as the construction of roads, building industries and other growth and developmental ventures. However, it appeared that these funds are mismanaged and no express economic development is witnessed. This paved way for several reforms on public financial management.

Worrisomely, despite the implementation of several institutional frameworks on public financial management, the development of Nigeria has continued to experience several challenges. The country is still full of many stories of immoral practices like artificial employees on the salary scale of Ministries and Departments. Inclusive are embezzlements, frauds and setting ablaze of government offices where money and documents are kept (Abdulkadir & Olashinde, 2018). Onuorah (2018) confirmed that several millions are lost in public entities because of financial mismanagement and malpractice, which surely



exhausts the nation's little resources and thereafter affects economic development.

It is suspected that the services of public sector entities in Nigeria is inefficient. Explaining further Imide and Imoughele (2019) claimed that the service delivery of public sector entities is not efficient because it is overwhelmed with the lack of accountability, transparency and high rate of corrupt government representatives. Overtime, this has degenerated into a rise in the rate of inflation, exchange, unemployment and poverty and stunted economic development. The standard of living of the populace has continued to nosedive, even with the continuous increase in government revenue, public expenditure and government borrowings. Based on the report given by the United Nation Development programme(UNDP) (2020), Nigeria's Human Development Index (HDI) value for 2020 was 0.539. Relatively, this puts the country in the low human development category positioning it at 161th out of 188 countries which was below neighbouring countries like Zambia, Gabon, Ghana and Equatorial Guinea that were positioned at 146th, 119th, 138th, 145th(United Nation Development programme (UNDP), 2020).

In the developed countries, planned revenue generation and expenditure are always carried out strictly to avoid any disparities to ensure that the expected growth and development in the economic activities and the overall living standard of the people are achieved (Serrao, 2016). Also, in Africa, countries like Rwanda, Ghana and South Africa have experienced remarkable government performance on the account of budget implementation (Amaefule, 2018). On the contrary, the performance of the Nigerian government seemed to be relatively low and sometimes negative. It is worrisome that despite the huge amount of Nigeria's budget, which has maintained an

upward trend over the years, its influence has been uncertain, evidenced by stunted/stagnant economic growth (Ayayi&Edewusi, 2020).

The eagerness of the government to ensure adequate infrastructural development capable of inducing investors through which higher performance could be achieved led to government borrowings (Olaoye&Olaniyan, 2020). However, the loan history of Nigeria appeared not to give credence to the essence of public debt. A critical look at the debts incurred by the Nigerian government against human development and the general standard of living of the people was worrisome, as to what has the government achieved with the huge debt incurred over the years. In this context, the main goal of this study is to examine Public Financial Management (PFM) and economic development in Nigeria.

In the developed and developing countries, several empirical studies have been carried out on public financial management and how it has affected economic growth of nations (Asegid, 2015; Serrao, 2016; Saifuddin, 2016; Odior & Alenoghena, 2015; Oladitan, 2016; Patrick, Julius, Gregory and Maurice, 2017; Mousa & Shawawreh, 2017; Favour, Ideniyi, Oge & Charity, 2018; Mutai, 2018; Ernest & Raymond, 2018; Abdulkadir & Olashinde, 2018; Matandare & Tito, 2018; Mutai, 2018; Olayinka & Adeyemo, 2019; Ayayi & Edewusi, 2020; Olaoye & Olaniyan, 2020). However, studies that centered solely on how economic development in terms of human development index can be influenced by Public Financial Management (PFM) in terms of government actual revenue, actual public expenditure and public debt are relatively scarce.



Most of these studies captured economic performance with Gross Domestic Product (GDP) (Mousa & Shawawreh, 2017; Favour, Ideniyi, Oge & Charity, 2018; Mutai, 2018; Matandare & Tito, 2018; Olayinka & Adeyemo, 2019). This is a vacuum in literature that this study intends to fill. Since the implementation of several institutional frameworks on public financial management is expected to stimulate human development and enhance the overall economic development, the study considered it necessary to examine Public Financial Management (PFM) and economic development in Nigeria.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Public Financial Management (PFM)

Nigeria's financial system is controlled by established codes of conduct, rules, policies and regulations, which coordinate the actual performance of the public sector to achieve established goals. To ensure the efficiency, transparency, effectiveness and accountability of the public sector, public financial management has been established. Conceptually, some authors, scholars, researchers and educators have defined public financial management based on international and local perspectives. Kanu, Obi and Akuwudike (2021) defined public financial management as a process of generating revenue and an effective method of distribution. The funds are to be used to achieve economic goals.

The introduction of public financial management is to heighten the responsibility of the government in terms of inflow and outflow of government revenue to promote economic development. From the perspective of Adesola and Kehinde (2020), public financial management includes

the control of public revenue, expenditure, debt, foreign exchange reserves, foreign exchange system, economic liquidity level and public financial auditing. This underscores that public financial management is an activity chain that revolves around the effective mobilization of public funds to achieve economic growth. The scope of the PFM is very broad enough to cover the actual revenue collected by the federal government, actual public expenditure, and public borrowing.

2.1.1.1 Actual Federal Government Collected Revenue

According to Abdulkadir and Olashinde (2018), government revenue refers to the total amount of funds generated by the government. It covers the receipt from the all government accounting departments. Similarly, Adesola and Kehinde (2020), proclaimed that the actual revenue collected by the federal government is the sum of the income generated by the federal government in a certain period. Due to the global economic challenges caused by the recent drop in oil prices and the devaluation of the naira in the global economic market, the federal government's over-reliance on the oil sector is having an adverse effect on the economy, which has caused many key issues, such as the Nigerian government's inability to generate funds to achieve economic development. Public funds can be generated internally and externally. Nevertheless, internal sources seem to be more significant to economic development than external sources.

2.1.1.2 Actual Public Expenditure

Actual public expenditure refers to the sum of expenditures incurred by the government to meet social needs in a certain period. Basically, the government's means of fulfilling all campaign promises to voters is called public spending. Public spending helps the government in



economic development and all other functions. Adesola and Kehinde (2020) pointed out that the government of any country performs two main functions, including the protection and provision of certain commodities. In the context of this study, public expenditure refers to the economic resources allocated by the government to enterprises and households based on non-market standards. This implies that public expenditure is the cost incurred by the government to provide, supply, and maintain itself as an institution, economy and society. This confirms the fact that public expenditure is expedient for achieving an equal society by providing welfare infrastructures and social facilities.

2.1.1.3 Public Borrowing

Public borrowing is also called government debt, national debt, public interest or sovereign debt, which embodies all of the country's obligations to its creditors, which are based on contracts. According to Adesola and Kehinde (2020), public borrowing is one of the main sources of income for the federal government, which is common in most advanced economies, but has recently been used by developing economies. Public borrowing debt can be used to regulate the economy through changes in the composition, amount, and rate of return of such debt. The long-term maturity portfolio of public borrowing can minimize the total liquidity of the economy, while on the contrary, the short-term maturity portfolio tends to increase liquidity. In addition, public borrowing can be used as an important tool for the federal government to control inflation and exchange rates, because it constitutes a major part of the economy's total credit supply.

2.1.2 Economic Development

Recently, in most diversified economic systems, economic development is one of the major unresolved economic and political issues. For example, a few years ago, the Council of Ministers of Economy and Finance of West Africa (ECOFIN) repeatedly called on the government to strengthen its efforts to achieve economic development and to be familiar with best practices, systems, or methods to strengthen economic development. However, other parts of the universe are also facing similar problems and need to pay great attention to their economic development (Akhanolu, et al., 2018). Economic development is defined as increasing per capita income and minimizing income inequality to increase people's overall satisfaction (Abdulrahman, 2018). Generally speaking, economic development indicators include macroeconomic indicators such as gross domestic product (GDP), human development index (HDI), public capital investment (PCI), unemployment rate (UR), inflation rate (IR), Capital Investment, among others. However, in the context of this study Human Development Index (HDI) shall be centered on.

2.1.2.1 Human Development Index (HDI)

According to Abdulrahman (2018), HDI is a system that measures the long-term achievement of the three facets of human development, including: a healthy and prosperous life, access to available skill and expertise and an acceptable standard of living. A healthy and prosperous life is basically measured by life expectancy, and knowledge acquisition is measured by the number of years of adult education. Basically, HDI give figures to sovereign nations as a degree of human prosperity (Monrakinyo, David & Alao, 2018). These figures are obtained by evaluating the level of education, standard of living, and life expectancy. It is said that nations with



higher figures on the index develop better than countries with lower scores. The system is designed to aid in predicting tactics to improve the living standards of people around the world. HDI is also employed in appraising why nations with comparable gross domestic product (GDP) have unequal HDI values, thereby affecting a country's fiscal and public policies.

2.2 Theoretical Review

2.2.1 Agency Theory

This theory is very common and one of the most significant theory of financial management both in the private sector and public sector. It is widely accepted that Jensen and Meckling (1976) propounded established this theory by building and conducting research on the study of Berle and Means (1932). This theory simply opines that when there is a relationship between two entities, a principal and his agent, issues would definitely spring up. That is, agency association is a situation where one entity (principal) transfers authority to another entity (agent) to undertake administrative duties on their behalf, while compensating them for their efforts.

In connection to this study, the government can be referred to as the agents, while the citizens or taxpayers are the principals. To expatiate, the citizens (principal) delegate their resources, authorities, responsibilities and desires to the government (agent) to carry it out on their behalf (Gamaliel& Ali, 2019). This delegation is usually done in form of election or appointment by the citizens. However, the government does not deliver as expected as has been revealed over time. In essence, the agents always fail the principal because they seek to maximize their own personal interests instead of that which concerns the whole country.

This theory finds relevance to the study because it enlightens that the activities of the government can be likened to that of an agent, who undertakes activities and decisions on behalf of the citizens, who are viewed as the principals. In essence, the citizens entrust the government with resources and authority to undertake different activities for them which would ultimately develop their economy, and ultimately improve their standard of living. And part of the activities which the Citizens entrust the Government with is proper public financial management.

2.2.2 Stakeholder's Theory

This theory was established to cover up the limitations of the Shareholder's theory that limited the beneficiaries or supposed beneficiaries of an institution's performance to only the owners of the institutions. It is widely accepted that the person that propounded Stakeholder's theory is Richard E. Freeman in 1984. The theory brought about business-based models to the public sector administration and management. Stakeholder's theory views a stakeholder as someone or group of people who have an influence or can be influenced if the institution achieves or does not achieve its objectives and targets for a particular period (Tantalo&Priem, 2014).

Notably, Stakeholder's satisfaction is accomplished when they are included in the decision making and execution of strategies procedures. In the same vein, Adesola and Kehinde (2020) stated that public financial management involves the activity of budget making, thus, many stakeholders should be involved as much as possible, to guarantee that the wishes of all the stakeholders are taken into consideration. In essence, the applicability of this theory in any field is to create a condition where as many Stakeholders as can be present, are involved in strategic



decision making process which would ultimately produce development for the Nation.

This theory holds relevance to the study and even to other fields due to its concrete assumptions and assertions which are accurate. However, it has been plagued with some criticisms due to some limitations. Firstly, it is actually difficult to achieve the wishes of all stakeholders and execute a transparent policy with them simultaneously (Lee, 2017). Additionally, stakeholders are not generic nor are they homogeneous within groups (Jeffrey, Edward & Mônica, 2015). That is, not all stakeholders are the same, and even if stakeholders are treated well, that does not guarantee that things would go well for the institution.

2.3 Empirical Review

Nwezeaku (2015) investigated the link between public sector financial management and economic development in Nigeria and Ghana. Ordinary least squares were utilized on secondary annual data from 1980 through 2013, through which it was proven that a highly significant causality existed between public sector financial management and continuous economic underdevelopment. Also, the result revealed that government revenue, government expenditure, management of inflation and investment have the greatest negative impacts on the efforts of these governments especially in Nigeria. The findings of the study under review could serve as fundamental knowledge on the nexus between public sector financial management and economic development, though the outcome of study under review might not depict the current happenings between public financial management and economic development. This could be as a result of the period covered.

Jumare, Yusuf and Mohammed (2015) used OLS to analyze the impact of government expenditure on economic growth and disclosed that a negative and insignificant relationship exists between physical capital and economic growth, while there is a positive but insignificant relationship between government capital expenditure and economic growth in the country. The study under review is similar to the present study as it relates to government expenditure, being a component of public financial management in the present study. However, a clear distinct lie on the fact that the current study intends to use ARDL analysis method as against the study under review that used OLS analysis method.

Oladitan (2016) investigated the effect of public financial management on economic growth in Nigeria covering a period of 1981 to 2015. Using aggregate time series analysis method, the study revealed that government expenditure has a significant effect on economic growth though the significance is form dependent. i.e., the form of government expenditure considered. Also, capital and recurrent expenditure have significant effect on economic growth but in varying degrees and extent. Finally, it was found out that capital expenditure would have exert positive impact on the level of economic growth. The study under review might not mirror the current happenings between public financial management and economic growth in Nigeria. On this basis, the current study is established. Notwithstanding, both studies focused on public financial management.

Using dynamic vector autoregressive regression, Iheanacho (2016) studied the impact of government expenditure to economic growth in the Nigeria (2010-2014). The study found that there exist a positive and significant effect between capital and recurrent



expenditure and economic growth of Nigeria under the period covered by the study. While the study under review used a data set covering 5 years (2010-2014), the current study covered a more recent data set spanning 2001-2020. Nevertheless, both studies relate to government expenditure in Nigeria.

A study was undertaken by Saifuddin (2016) in Bangladesh to evaluate public financial management and economic growth. Secondary data from 1974-2014 were collated and analyzed using the Augmented Dickey-Fuller test and the TSLS regression analysis. From the analysis, findings gave credence to the fact that public financial management is positively linked to both investment and economic growth. The study under review is similar to the current study as it focused on public financial management. However, the study under review studied public financial management holistically, while the current study proxies the independent variable with actual public expenditure, federal government revenue and public borrowing.

In Indonesia, Mousa and Shawawreh (2017) appraised the influence of financial management on economic growth. Secondary time series data spanning fifteen years (2000-2015) was analyzed with the least squares' method and regression model. Findings uncovered from the study showed that there is a positive effect of total public revenue, especially the IGR on economic growth. The reviewed study and the current study share similarity as public financial management is staged as the predictor variable. However, the current study intends to employ Auto-Regression Distribution Lag (ADRL) analysis method as against the study under review that used OLS and regression analysis method.

Olayinka and Adeyemo (2019) studied the causality of public sector financial management and output growth (2000-2018). The study used correlation analysis method and It was found out that poor financial management in the public sector and continuing diversion of funds from the system has hindered positive benefaction from some key economic sectors of the economy. While the current study intends to use ARDL analysis method, the study under review used correlation analysis method.

Olaoye and Olaniyan (2020) investigated the public sector financial management and economic growth of Nigeria from 1986 to 2016. Error correction model was used to analyze the data. The study revealed among other things that; there is the presence of co-integration (long-run relationship) among the variables in the model, actual public debt service and total public borrowing has significant relationship with economic growth of Nigeria, while total public expenditure and total federally-collected revenue are not significantly related to economic growth in the long run. The outcome of the study might not depict the current nexus between public financial management and economic development as a result of out-of-date data set used for the study. To bridge this gap, the current study intends to employ a data set covering a period of 20 years (2001-2020).

2.5 Gaps in Literature

In the developed and developing countries, several empirical studies have been carried out on public financial management and how it has affected economic growth of nations (Saifuddin, 2016; Oladitan, 2016; Mousa & Shawawreh, 2017; Mutai, 2018; Ernest & Raymond, 2018; Matandare & Tito, 2018; Mutai, 2018; Ayayi & Edewusi, 2020). However, studies that centered solely on how



economic development in terms of human development index can be influenced by Public Financial Management (PFM) in terms of government actual revenue, actual public expenditure and public debt are relatively scarce. Most of these studies captured economic performance with Gross Domestic Product (GDP). This is a vacuum in literature that this study intends to fill. Since the implementation of several institutional frameworks on public financial management is expected to stimulate human development and enhance the overall economic development, the researcher considered it necessary to examine Public Financial Management (PFM) and economic development in Nigeria.

2.6 Research Hypothesis

The following research hypotheses were formulated and are stated in the null form as follows:

- i. there is no significant relationship between total government revenue and economic development in Nigeria;
- i. there is no significant connection between total government expenditure and economic development in Nigeria;
- ii. there is no significant relationship between total public debt and economic development in Nigeria.

3.0 Methodology

Ex-post facto research design was adopted for this study. This design is appropriate for the study in that the study aimed at obtaining important information on the status of specific phenomenon without any manipulation of the situation. The data set for this study was mainly secondary data sourced from Central Bank of Nigeria Statistical Bulletin (CBN, 2020). The data comprised annual time series spanning 2001 through 2020. The variables of

interest were HDI (proxied for economic development), total revenue, total expenditure and public debt (proxied for PFM). This study made use of descriptive statistics to show the mean, standard deviation, minimum and maximum values of the variables used in the study. This was followed by correlation analysis, unit root analysis, co-integration analysis and error correction model estimation. Notably Unit root test was important as it shows the number of times the variables have to be differentiated to clear the unit root and make the data stationary. Thus, the standard augmented Dickey-Fuller test (Dickey and Fuller, 1979) was performed to determine the presence of unit root in the data and to establish the properties of individual series. After performing the ADF test. Co-integration test was conducted to know the nature of relationship between the variables in the long run. And thereafter the Error Correction Model (ECM) was developed to know the rate of adjustment of short run disequilibrium and how the short run inconsistencies were incorporated into the long equilibrium dynamics over time. The study adapted the model used by Kalu (2016) which expressed economic performance proxied by Gross Domestic Product (GDP) as a function of total expenditure and total revenue. This is given below:

$$GDP = f(TEXP, TREV) \dots\dots\dots (3.1)$$

Where:

GDP = Gross Domestic Product (GDP)

TREV = Total Revenue

TEXP = Total Expenditure

However, the above model was modified with the inclusion of total public debt because the functionality of



government of Nigeria largely depends on debt. Also, Human Development Index (HDI) was used in place of GDP since it is part of the means to measure economic development and it has been scarcely used overtime as a function of PFM. The model of this study used exchange rate and interest rate as control variables to fix the effect of rate instability level in the discourse of how public financial management influences economic development. The modified model is stated below:

HDI = f(TGR, TGE, TPD, EXC, INT)..... (3.2)

Where:

HDI is Human Development Index

TGR = Total Government Revenue

TGE = Total Government Expenditure

TPD = Total Public Debt

EXC = Exchange Rate

INT = Interest Rate

Therefore, the equation specification in its logarithm form is then:

HDI = beta_0 + beta_1 lnTGR + beta_2 lnTGE + beta_3 lnTPD + beta_4 lnEXC + beta_5 lnINT + mu_t (3.3)

Where:

beta_0, - beta_5 = parameters estimate in the model

mu_t = Stochastic error term

4.0 Result and Discussion

4.1 Results

4.1.1 Descriptive Statistics

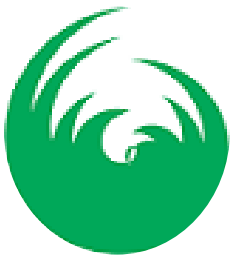
Descriptive statistics was carried out to describe the characteristics of each period for the period covered with the use of mean, standard deviation, minimum and maximum.

Table 4.1: Descriptive Statistics

Table with 7 columns: HDI, LTGR, LTGE, LTPD, EXC, INT. Rows include Mean, Std. Dev., Minimum, and Maximum for each variable.

Source: Author’s Computation (2021). Where: HDI is Human Development Index, LTGR is Total Government Revenue, LTGE is Total Government Expenditure, LTPD

is Total Public Debt, EXC is Exchange Rate, INT is Interest Rate.



As represented in table 4.1, the mean average value of HDI is 0.4916 together with the minimum and maximum values of 0.439 and 0.539 respectively. The standard deviation (0.031333) value reveals that the variability of HDI across the sampled years is low, as it is relatively far from the average value. Also, the mean value of LTGR (8.528548) together with the standard deviation of 0.696498 shows that the inconsistency is low as it is relatively distanced from the mean value. The minimum and maximum values are 6.855609 and 9.316217 respectively. Similarly, the mean value of LTGE stood at 7.894520 with the minimum and maximum values of 6.552579 and 8.963639 respectively. The standard deviation (0.746116) shows that the variability is lower, as its relatively far from the mean value. The mean value of LTPD is 8.793638 with the minimum and maximum values of 7.698356 and 10.05600 respectively. For EXC, the average value is 329.9190 with the maximum and minimum values of 73.12800 and 568.4960 for the years covered. The standard deviation

stands 153.0196 showing a mild variability across the sampled period. Similarly, the average value of INT is 10.69850 with the minimum and maximum values of 5.69 and 16.67 respectively. The standard deviation of 2.92 shows that the changeability is low as it is relatively far from the average value.

4.1.2 Correlation Analysis and Multicollinearity Test Results.

Correlation analysis, Pearson correlation in particular, was carried out to determine the relationship between the predictors and the outcome variable. Collinearity test was necessary to determine the presence or absence of multicollinearity which might engendered a less dependable significant values of the predictors. Using variance inflation factors (VIF), the collinearity test was performed and the factors for each of the variables is shown in table 3.

Table 4.2: Pearson Correlation Matrix and Multicollinearity Test Results.

Var.	HDI	LTGR	LTGE	LTPD	EXC	INT	VIF
HDI	1.000000						
LTGR	0.832201	1.000000					4.236
LTGE	0.943282	0.476179	1.000000				5.577
LTPD	0.794134	0.404881	0.303812	1.000000			3.359
EXC	0.839415	0.530873	0.231506	0.519092	1.000000		4.450
INT	-0.710436	-0.418946	-0.385918	-0.463440	-0.489174	1	1.981

Source: Author's Computation (2021). Where: HDI is Human Development Index, LTGR is Total Government Revenue, LTGE is Total Government Expenditure, LTPD

is Total Public Debt, EXC is Exchange Rate, INT is Interest Rate.

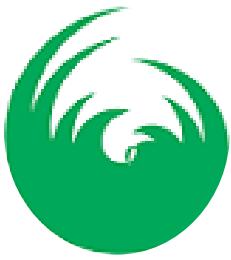


Table 4.2 shows that a positive relationship exists between HDI, LTGR, LGE, LTPD and EXC with the coefficient values of 0.832201, 0.943282, 0.794134 and 0.839415 respectively. This implies that all the aforementioned variables moved towards similar directions for the period covered. On the contrary, a negative relationship exists between HDI and INT with the coefficient value of -0.710436, showing that the variables moved in different directions. Also, a positive correlation exists between LTGR, LTGE, LTPD and EXC with the value of 0.476179 for LTGE, 0.404881 for LTPD and 0.530873 for EXC. While a negative correlation exists between LTGR and INT with the coefficient value of -0.418946. The result revealed that a positive correlation exists between LTGE, LTPD and EXC with the values of 0.303812 and 0.231506 respectively.

A negative relationship exists between LTGE and INT with the value of -0.385918. Furthermore, it was unveiled that a positive relation exists between LTPD and EXC with the coefficient of 0.519091, a negative correlation between LTPD and INT with the coefficient value of -0.463440 and a negative correlation between EXC and INT with the coefficient value of -0.489174. Since all the variance inflation factors for the predictors are less than 10, being the general standard, it connotes that there is no issue of multicollinearity.

4.1.3 Unit Root Test

Unit root test was carried out to ascertain the integration order of the variables. This is important for co-integration test. There are many methods with which unit root test can be performed to determine the stationarity of the variables however, Augmented Dickey-Fuller (ADF) with the test hypothesis that the variable contains unit root was used

Table 4.3: ADF Unit Root Test

Variable	Level		First difference		Order of Integration
	Test statistic	p-value	Test statistic	p-value	
HDI	-3.910595	0.0353**	—	—	I(0)
LTPD	-1.557133	0.9690	-3.464940	0.0760***	I(1)
LTGR	-2.413144	0.3618	-4.177097	0.0220**	I(1)
LTGE	-3.446177	0.0370**	-----	-----	I(0)
EXC	-1.790333	0.6667	-4.799177	0.0109**	I(1)
INT	-2.996225	0.1584	-4.175815	0.0208**	I(1)

Source: Data Analysis (2021) Note: *, ** and *** indicate rejection of null hypothesis at 1%, 5% and 10% significance level respectively.

Table 4.3 shows that only HDI and LTGE are stationary at level while LTPD, LTGR, EXC and INT become

stationary after the first difference. The test, therefore, confirms that the variables are mix of I(0) and I(1) series indicating that bounds test will be carried out to determine the long-run relationship.



4.1.4 Cointegration Test

Cointegration test was carried out using Autoregressive Distributed Lag (ARDL) bounds test because of the differences in the order of integration as presented in table 4.3 (unit root test). To reject the null hypothesis, the F-

statistic must exceed the upper bound critical value. On the other hand, null hypothesis is accepted if F-statistic falls below the lower bound critical value. If the F-statistic falls between the lower and upper bounds critical values, the evidence of co-integration is inconclusive.

Table 4.4: Bounds Test Result

F-statistic	Significance level	Critical value bounds	
		Lower bound	Upper bound
8.917545	1%	3.93	5.23
	5%	3.12	4.25
	10%	2.75	3.79

Source: Data Analysis (2021)

Table 4 shows that the F-statistic is greater than the upper bound critical values at 5% significance level, thus indicating that there is enough evidence the null hypothesis can be rejected. This indicates that there is long-run relationship among the variables in the model.

4.1.5 Long-run Estimation Results

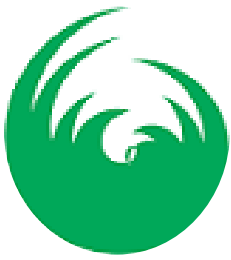
The coefficients of the long-run estimation model as obtained from the ARDL model based on the chosen Schwarz information criterion

Table 4.5: Long-run Estimation Results

Variable	Coefficient	p-value
Constant	0.600046	0.0005
LTGR	0.009934	0.1161
LTGE	-0.034775	0.0334**
LTPD	0.003634	0.2331
EXC	0.000015	0.6183
INT	-0.002374	0.0009*

Source: Data Analysis (2021). Note: * and **denotes statistically significant at 1% and 5% significance level respectively.

Table 4.5 reveals the result of the long run estimation. It shows that LTGR, LTPD and EXC have a positive insignificant effect on economic development. The



coefficient and probabilities are 0.009934($P=0.1161>0.05$) for LTGR, 0.003634($p=0.2331>0.05$) for LTPD and 0.0000015($p=0.6183>0.05$) for EXC. On the other hand, LTGE and INT exert a negative but significant effect on economic development of Nigeria for the period covered to the tune of $-0.034775(p=0.0334<0.05)$ and $-0.002374(p=0.009<0.05)$ respectively.

Table 4.6: Short run Estimation Result

Variable	Coefficient	p-value
D(LTGR)	0.012210	0.0862***
D(LTGE)	-0.013365	0.2165
D(LTPD)	0.004467	0.2110
4.D(EXC)	-0.000013	0.7191
D(INT)	-0.001305	0.0422**
CointEq(-1)	-0.229189	0.0001*

Source: Data Analysis (2021). Note: *, ** and *** denote statistically significant at 1%, 5% and 10% significance level respectively.

Table 4.6 representing the short run result of the ARDL analysis, it was revealed that D(LTGR) has a contemporaneous positive and significant relationship with HDI. D(LTGE) has a negative and insignificant relationship with HDI. D(LTPD) has a contemporaneous positive but insignificant relationship with HDI. Also, D(EXC) has a negative insignificant relationship with HDI. Finally, D(INT) has a contemporaneous negative but significant relationship with HDI. The lag error correction term CointEq(-1), which measures the speed of adjustment to restore long-run equilibrium in the dynamic model has

4.1.6 Short Run Results

As presented in table 4.6, the short run result shows the short run dynamics and the speed of adjustment.

the expected negative sign and statistically significant at 1% significance level. This further validates the long-run relationship among the variables. The low coefficient of the error correction term shows that disequilibrium from the past year slowly adjusts back to the long-run equilibrium in the present year at a speed of adjustment rate of 22.92%.

4.1.7 Diagnostic Tests

It is vital that the residuals are uncorrelated, residuals' variances are not constant and that the residuals must be normally distributed. To ascertain all these, serial correlation LM test, Heteroskedasticity and normality test were carried out.



Table 4.7: Serial Correlation LM Test (Breusch-Godfrey)

Null hypothesis	F-statistic	p-value
There is no serial correlation	1.071502	0.4000

Source: Data Analysis (2021)

Table 4.7 shows the F-statistics of 1.0715 and a P-value of 0.4000, indicating that there is enough evidence to accept the null hypothesis that there is no serial correlation. Hence, the estimation result is not biased and can be relied upon.

Table 4.8: Heteroskedasticity Test (Breusch-Godfrey Pagan)

Null hypothesis	F-statistic	p-value
F-statistic	0.752647	0.6695

Source: Data Analysis (2021)

Table 4.8 shows that the hypothesis that the residuals are not heteroskedastic and cannot be rejected. Hence, the estimation result is not biased and can be relied upon.

Table 4.9: Normality Test (Jarque-Bera)

Null hypothesis	Jarque-Bera	p-value
Residuals are normally distributed	0.752647	0.6695

Source: Data Analysis (2021)

Table 4.9 shows that the hypothesis that the residuals are normally distributed and cannot be rejected. It thus indicates that the residuals in the model have a normal distribution.

4.1.8 Granger Causality Test

Table 4.10: Granger Causality Test Results

Null Hypothesis:	Obs	F-Statistic	Prob.
LTGR does not Granger Cause HDI	18	0.86485	0.4440
HDI does not Granger Cause LTGR		0.27632	0.7629
LTGE does not Granger Cause HDI	18	8.53205	0.0043



HDI does not Granger Cause LTGE		0.18984	0.8293
<hr/>			
LTPD does not Granger Cause HDI	18	0.30464	0.7425
HDI does not Granger Cause LTPD		3.18820	0.0747
<hr/>			
LTGE does not Granger Cause LTGR	18	1.06676	0.3724
LTGR does not Granger Cause LTGE		0.30004	0.7458
<hr/>			
LTPD does not Granger Cause LTGR	18	0.46342	0.6391
LTGR does not Granger Cause LTPD		1.31505	0.3019
<hr/>			
LTPD does not Granger Cause LTGE	18	0.18281	0.8350
LTGE does not Granger Cause LTPD		1.96965	0.1790

Table 4.10 shows that all the components of public financial management did not granger cause HDI with the exception of LTGE because of the probability values greater than 5%. Thus, causality here runs from LTGE to HDI alone. Also, HDI did not granger cause all the proxies of public financial management because of the probability values greater than 5%. This is an indication that causality does not flow from HDI to any of the proxies of public financial management.

4.1.9 Validation of Hypotheses

All the hypotheses that stemmed from the stated objectives were validated with the long-run estimation result and present in table 4.11, 4.12 and 4.13.

Table 4.11: Hypothesis One

Null Hypothesis	Expected Relationship	Results	Actual Relationship	Outcome
There is no significant relationship between total government revenue and	Positive	0.0099(p=0.1161>0.05)	Positive	Accept H ₀



economic development in Nigeria.

Source: Author's Compilation, 2021.

Since the P-value is greater than 0.05, the null hypothesis is therefore accepted connoting that there is a positive and insignificant effect of total government revenue on economic development in Nigeria.

Table 4.12: Hypothesis Two

Null Hypothesis	Expected Relationship	Results	Actual Relationship	Outcome
There is no significant relationship between total government expenditure and economic development in Nigeria.	Positive	-0.0348(p=0.0334<0.05)	Negative	Reject H ₀

Source: Author's Compilation, 2021.

Based on the estimation results, there is enough evidence to reject the null hypothesis. Hence, there is a negative and significant effect of total government expenditure on economic development in Nigeria.

Table 4.13: Hypothesis Three

Null Hypothesis	Expected Relationship	Results	Actual Relationship	Outcome
There is no significant relationship between total public debt and economic development in Nigeria.	Positive	0.0036(p=0.2331>0.05)	Positive	Accept H ₀

Source: Author's Compilation, 2021.

Since the P-value is greater than 0.05, the null hypothesis is therefore accepted connoting that there is a positive and insignificant effect of total government public debt on economic development in Nigeria.



4.2 Discussion of Findings

The focus of this study is on Public Financial Management (PFM) and economic development in Nigeria. PFM was captured with total government revenue, total government debt and total government expenditure. Using the long-run estimation results, it was discovered that total government revenue has a positive and insignificant effect on economic development in Nigeria to the tune of 0.0099($p=0.1161>0.05$). This signifies that 1% increase in total government revenue will engender a 0.0099 increase in economic development in terms of HDI. This finding established the tenets of endogenous growth model that the development of the state is largely dependent on the available internal resources. The effect of total government revenue is positive probably because of the initiatives of the government like the introduction of TIN and E-taxation to improve the generated of revenue. However, its insignificance might be due to the inefficiency of the government officials saddled with the responsibility of generating and managing the revenue of the government. This finding gave credence to the findings of Saifuddin (2016), Mousa and Shawawreh (2017) that the relationship between government revenue and the nation's development is positive. Nwezeaku (2015) reported a negative relationship between government revenue and economic development.

Another discovery is that total government expenditure has a negative and significant effect on economic development in Nigeria to the tune of $-0.0348(p=0.0334<0.05)$. This explains that economic development in Nigeria will decrease by 0.035 with just a 1% increase in total government expenditure. The significant and negative effect might be attributed to the mismanagement and all forms of corrupt practices that overwhelmed the country. Inclusive might be the dualization of the parliament with

huge operational expenses. This outcome was not in tune with the principles of endogenous growth theory that economic development is mostly determined by resources expended on investment in human capital, innovation and knowledge management. This outcome failed to corroborate the discovery of Jumare, Yusuf and Mohammed (2015) that there is a positive but insignificant relationship between government capital expenditure and economic growth. Also, it negated the findings of Oladitan (2016) and Iheanacho (2016) and Olaoye and Olaniyan (2020) that government expenditure has a significant effect on economic growth. However, this outcome established the findings of Nwezeaku (2015) that government expenditure has a negative influence on the advancement of a country's economy.

It was equally discovered that there is a positive and insignificant effect of total public debt on economic development in Nigeria in terms Human Development Index (HDI) to the tune of $0.0036(p=0.2331>0.05)$, indicating that a 1% increase in total public debt, economic development will advance by 0.004. The positive effect might be due to the fact that debt is an additional revenue for the government to defray government expenditure. However, it is not significant probably because it is mostly used to finance recurrent expenditure. This discovery affirmed that findings of Saifuddin(2016) and Ayayi and Edewusi (2020) that debt is instrumental to the overall development of the nation.

4.3 Implications of Findings

The first discovery is that total government revenue has a positive and insignificant effect on economic development in terms of Human Development Index (HDI). By implication, this states that revenue generated in Nigeria can stimulate increase in economic development, though



insignificantly. Since total government expenditure exerted a negative effect on economic development, the inference is that government expenditure in Nigeria has no potency to singularly and positively improve the development of the country. It exerted a negative influence significantly. Also, the effect of total public debt was positive but not significant. This underlies that, though government borrowings exerted a positive effect on economic development in terms of HDI, its influence might not be significant in the long-run.

5.1 Conclusion

In the developed and developing countries, several empirical studies have been carried out on public financial management and how it has affected economic growth of nations. However, studies that centered solely on how economic development in terms of human development index can be influenced by Public Financial Management (PFM) in terms of government actual revenue, actual public expenditure and public debt are relatively scarce. Most of these studies captured economic performance with Gross Domestic Product (GDP). This is a vacuum in literature that this study intends to fill. Since the implementation of several institutional frameworks on public financial management is expected to stimulate human development and enhance the overall economic development, the researcher considered it necessary to examine Public Financial Management (PFM) and economic development in Nigeria. Based on the analysis carried out, it was therefore established that government revenue and public debt has no potency to significantly influence economic development and that total expenditures can only influence economic development negatively.

5.2 Recommendations

The following recommendations were considered vital based on the findings made:

- i. There should be improvement on internally generated funds. This could be done by involving private agencies in the collection processes. Most importantly, the country should explore new sources of revenue.
- ii. The government should devise mechanisms to guarantee that offices and people are not duplicated, and that the massive expenditures spent by Legislators be drastically reduced. Dualization of the legislative branch of government should be avoided at all costs. Regular public spending review meetings should be held, at which government representatives, civil society groups, and people may debate expenditures in detail. In addition, the government should cooperate with law enforcement authorities to guarantee that public officials who misappropriate public funds are held accountable.
- iii. Borrowed funds should be utilized to help the nation build her infrastructure, not to assist consumption or to industries that are neither productive nor capable of encouraging investment. Domestic income should be distributed and utilized wisely. This may help to decrease the dependence on debt to fund capital projects.

5.3 Suggestions for Study

This study covered 20 years hence, scholars interested in a similar topic can extend this scope more than 20 years. Also, similar studies can use public capital investment and GDP per capita to capture economic development. Lastly, more studies should be conducted in a wide variety of nations. That is, future research, particularly in Africa, should focus on the connection between public financial management and the continent's economic development.

References



Abdulkadir, A. R. & Olashinde, J. O. (2018). Empirical analysis of poor public financial management in Nigeria: Causes, implications and remedies. *Asian Development Policy Review*, 6(4), 178-197.

Abdulrahman, S. (2018). How government expenditure effects on economic growth in Nigeria. *Pyrex Journal of Business and Finance Management Research*.2(10), 122-134.

Adesola, V. A. & Kehinde, D. I. (2020). Financial resource management in the Nigerian public sector: Policy measures to address loopholes. *Problems and Perspectives in Management*, 18(2), 329-339.

Ajayi, I. E. & Edewusi, D. G. (2020). Effect of public finance management on economic growth of Nigeria; An empirical investigation. *International journal of business and management review*, 8(1), 18-38.

Akhanolu, I.A., Babajide, A.A., Akinjare, V., Oladeji, T. & Osuma, G. (2018). The effect of public debt management on economic growth in Nigeria: an empirical investigation. *International Business Management*, 12(6), 436-441.

Amaefule L. I. (2018). Public debt and the performance of Nigeria's economy: An empirical evaluation (1991-2016). *International Journal of Social & Management Sciences Maiden Edition* 1(1), 14-27.

Asegid, R. (2015). *Public financial management practice in public institutions: The case of ministry of communication and information technology, Addis Ababa University, Kenya*. A thesis submitted to Addis Ababa University, Kenya. 1-126.

Babacar, S. (2015). Assessing public sector performance in developing countries: Four essays on public financial

management and public service delivery. *South African Journal of Economics*, 2(4), 1-162.

Berle, A. A. Jr., & Means, G. C. (1932). The modern corporation and private property. *New York: Macmillan*. 1-45.

Chukwu A. E, & Udochukwu, G. O. (2019). Pattern of Government Recurrent Expenditure and Economic Growth in Nigeria. *International Journal Of Innovative Research and Development*, 8(10).

Ernest, S. O. & Raymond, O. A. (2018). Public sector financial management and output growth in Nigeria: a predictive causality test and two-stage least square approach. *International Journal of Economics*, 1(2), 1-15.

Favour, E.O., Ideniyi, O.S., Oge, E.O. & Charity, I.A. (2017). Public financial management and economic growth in Nigeria. *Asian Research Journal of Arts & Social Sciences*, 4(3), 1-16.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Massachusetts: Pitman.

Gamaliel, M. M. & Ali, A. I. (2019). Effect of public financial management on budget implementation in the public sector, a case of ministry of devolution and Asal. *The Strategic Journal of Business and Change Management*, 6(1), 573-585.

Iheanacho, E. (2016). The contribution of government expenditure on economic growth of Nigeria disaggregated approach. *International Journal of Economics & Management Sciences*, 5(5), 2-8.

Imide, I. O. & Imoughele, L. E. (2019). Effect of fiscal policy on Nigeria human development index (HDI) during



the democratic era. *International Journal of Economics, Commerce and Management*, 7(2), 133-155.

Jeffrey, S. H., Edward, F. R. & Mônica, C. Sá de A. (2015). Stakeholder theory as an ethical approach to effective management: applying the theory to multiple contexts. *Review of Business Management*, 17(55), 858-869.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior agency costs ownership structure. *Journal of Financial Economics*, 3(2), 305 -360.

Joseph, K. (2017) The between relationship public sector and industrial sector productivity. *Journal of Government Financial Management*, 65(3), 07-22.

Jumare, A., Yusuf, M. & Mohammed, W. (2015). Assessing public sector financial management and economic growth in Africa: Four essays on public financial management and public service delivery. *South African Journal of Economics*, 1(4), 1-162.

Kanu, S. I., Obi, H. K. & Akuwudike, H. C. (2021). Impact of public sector financial management on the economic growth of Nigeria. *International Journal of Management Science and Business Administration*, 7(4), 45-59.

Lee, D. (2017). Corporate social responsibility and management forecast accuracy. *Journal of Business Ethics*, 140(2), 353-367.

Matandare, M.A. & Tito, J. (2018). Public financial management and economic growth nexus in Italy. *Journal of Economics and Sustainable Development*, 9(2), 84-89.

Mohammed, B. E. A. & Mohammed, N. M. H. (2016). The role of government financial management information system in raising the effectiveness of the government

budgeting. *International Journal of Business and Social Science*, 7(6), 1-18.

Mousa, T.A. & Shawawreh, A. (2017). The impact of financial management on the economic growth of Indonesia: an empirical study (2000- 2015). *Accounting and Finance Research*. 6(2), 114-120.

Mutai, P. C. (2018). *Effect of public financial management practices on performance of County Government in Kenya*. A thesis submitted to the Jomo Kenyatta university of agriculture and technology, Kenya. 1-223.

Mwangi, R. K. (2016). *The impact of the public financial management reforms on financial operations of the ministry of finance, a case of ministry of finance*. A thesis submitted to the University of Nairobi. 1-79.

Oladitan, S. T. (2016). *Effect of public financial management on economic growth*. A thesis submitted to Kwame Nkrumah University of Science and Technology. 1-70.

Olaoye, F. O. & N. O. Olaniyan (2020). Public sector financial management and economic growth (study in Nigeria). *International Journal of Economic and Business*, 3(1), 56-65.

Olayinka, E., S. & Adeyemo, O., R. (2019). Public sector financial management and output growth in Nigeria: A predictive causality test and two-stage least square approach. *Journal of Economic & Financial Studies*, 2(1), 1-13.

Patrick, M. C., Julius, R. O., Gregory, S. N. & Maurice, S. (2017). Effect of public financial management practices on performance in Kericho County government, Kenya; A critical review. *International Journal of Education and Research*, 5(12), 1-14.



Racheal, W. M. (2016). *The role of public financial management practices on service delivery in selected counties: perception of members of county assembly*. A dissertation submitted to KCA University, Kenya. 1-88.

Sangaran, V. & Priyatharsiny, S. (2018). Effects of fiscal policy on human development in Sri Lanka: An empirical analysis. *Journal of Smart Economic Growth*, 3(3), 1-36.

Serrao, A. (2016). Impact of public financial management on economic growth in advanced economies. *International Journal of Managerial Studies and Research*, 4(2), 70-76.

Stanley, M. N. (2017). *Factors affecting effective implementation of sound financial management in county governments in Kenya: A case of Kiambu County*. A thesis submitted to the United States International University-Africa. 1-97.

Tantalo, C. & Priem, R.L. (2014). Value creation through stakeholder synergy. *Strategic Management Journal*, 1(3), 1-13.